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NEOTROPICAL NABIDAE (HETEROPTERA), 1: A NEW GENUS, SOME NEW SPECIES, AND NOTES ON SYNONYMY

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Abstract.—A new genus *Praecarthasis* (tribe Carthasini, type species *Nabis panamensis* Harris) and seven new species are described: *Praecarthasis nigrescens* (Brazil, Peru), *P. pusillus* (Brazil), *P. paprzyckii* (Peru), *P. gibbus* (Panama, Ecuador, Peru), *P. froeschneri* (Brazil, Ecuador, Peru), *Neogorpis spinicollis* (Panama), *Alloeorhynchus alayoi* (Cuba). The following species are resurrected from synonymy: *Arachnocoris panamensis* (Distant), not a synonym of *A. albomaculatus* Scott; *Lasiomerus signatus* (Uhler) not a synonym of *L. spinicrus* (Reuter); *Hoplistoscelis sericans* (Reuter), not a synonym of *H. nigriventris* (Stål). *H. sericans* is considered a senior synonym of *H. deceptivus* (Harris) and *Alloeorhynchus moritzii* (Stein) of *A. armatus* Uhler.

The present paper contains descriptions of new taxa and notes on synonymy. The following abbreviations are used for institutions in which the material is preserved (curators who lent material are in parentheses): AMNH—American Museum of Natural History, New York (P. Wygodzinsky, R. T. Schuh); BMNH—British Museum (Natural History), London (W. R. Dolling); NRS—Swedish Museum of Natural History, Stockholm (the late E. Kjellander); UP—Department of Systematic Zoology, Charles University, Prague (P. Štys); USNM—National Museum of Natural History, Washington, D.C. (T. J. Henry, R. C. Froeschner); ZIH—Zoological Institute, Academy of Sciences of Cuba, Havana (P. Alayo D.); ZIL—Zoological Institute, Academy of Sciences of the USSR, Leningrad; ZMB—Zoological Museum, Humboldt University, Berlin, GDR (U. Göllner-Scheiding); ZMH—Zoological Museum, Helsinki University (M. Meinander). All measurements are in millimeters.

SUBFAMILY NABINAE

Tribe Arachnocorini

Arachnocoris panamensis (Distant), **Revised Status**
Fig. 3

Herdonius (?) *panamensis* Distant, 1893:419.
Arachnocoris panamensis: Bergroth, 1914:117.
Arachnocoris albomaculatus (not Scott, 1881): Bergroth, 1914:117; Myers, 1925:136–146; Harris, 1928:29.

Discussion. I have examined 6 males and 3 females of *A. panamensis* from Panama (AMNH), compared them with the holotype of *A. albomaculatus* Scott (male from Rio de Janeiro, damaged and without genital segment, BMNH), and found that the synonymy of *A. panamensis* with *A. albomaculatus*, established by Myers (1925) is incorrect. *Arachnorocis panamensis* differs from *albomaculatus* (and also from *alboannulatus* Costa Lima) by the absence of a hook on the hind trochanters in the

male, by the white base of the second abdominal segment, and by the transverse white stripe on the hemelytra being wider laterally (Figs. 3–5). These species, however, do not differ in proportions of the antennal segments. The specimen on which the original description of *H. panamensis* is based, recently designated as lectotype (Carvalho and Dolling, 1976), is a female, not a male as Bergroth (1914) stated.

Tribe Carthasini

Praecarthasis, new genus

Praecarthasis (*nomen nudum*): Kerzhner, 1981:31, 34, 35, 61, 63, 82, 85.

Type species. Nabis panamensis Harris, 1926.

Diagnosis. The following features common to *Praecarthasis* and *Carthasis* differentiate them from the Nabini: long cylindrical fore coxae; fossa spongiosa placed at extreme apex of tibia; 4th antennal segment longest. The following features are intermediate between the Nabini and *Carthasis:* fore and middle tarsi 2-segmented, hind tarsi 3-segmented (all tarsi are 3-segmented in the Nabini and 1-segmented in Carthasini); forecoxal cavities closed behind but continued by a hollow for holding the coxae (they are open in the Nabini, closed and not continued by a hollow in *Carthasis*). Features common to *Praecarthasis* and Nabini but differentiating the new genus from *Carthasis:* presence of ocelli, ostiolar canals at metathorax, parastigmal pits, and Ekblom's organ (all of the above absent in *Carthasis*); moderately long rostrum (very short in *Carthasis*); fossa spongiosa only on fore and middle tibiae (on all tibiae in *Carthasis*). The following characters differentiate the new genus from both the Nabini and *Carthasis:* subdivision of corium and clavus in two parts differing in the degree of sclerotization and presence of punctures; a row of punctures at the border of ventrites II–III and III–IV; distinct punctation of abdominal mediotergites.

Description. Body elongate, nearly parallel sided or (*P. pusillus, P. paprzyckii*) slightly widened at middle of abdomen; dorsum with short setae. Body length 3.6–5.6.

Head of nearly equal length and width. Eyes large, nearly touching the hind margin of head. Ocelli large, well separated. Antennae slender, especially the last two segments; 4th segment the longest. Rostrum with 2nd and 3rd segments long and the 4th segment shortest, reaching or nearly reaching the hind coxae.

Pronotum shining, fore lobe moderately or highly raised, collar, posterior lobe of pronotum, and sides of prothorax on hind part with or without punctures. Xyphus of prothorax triangular or trapezoidal. Fore acetabulae visible from above. Forecoxal cavities set forward and closed behind, area of prothorax behind each cavity with a deep longitudinal impression for holding the coxae in repose and as a rule not visible upon casual examination. Scutellum mostly with an arcuate transverse elevation with two pits before, and often with a longitudinal elevation behind. Sides of mesothorax punctured. Metathorax with well-developed, straight, ostiolar canals of scent glands, these directed laterally and posteriorly.

Hemelytra slightly constricted on the anterior fourth, corium and clavus with typical venation, membrane without veins or with one or two straight veins near the outer margin. Base of corium and clavus (up to the level of the apex of the scutellum) more strongly sclerotized and with some punctures along the veins, the remaining

part, except corium outside the R+M vein, less strongly sclerotized and as a rule more light-colored (in species of the *P. gibbus* group more or less transparent).

Fore coxae long, cylindrical, slightly thickened before base. Fore femora moderately thickened. Fore tibiae curved, shorter than femora, thickened at apex. Middle and hind coxae conical. Middle and hind femora slender. Fossa spongiosa of fore and middle tibiae well developed, arising from extreme apex of tibia. Ventral margin of fore tibiae with two rows of oblique teeth, middle tibiae without teeth. Fore and middle tarsi 2-segmented, hind tarsi 3-segmented. Claws small, simple.

Abdomen shining, covered with hairs. Mediotergites I–VII or I–VI with large punctures. Dorsal scent glands with only a single opening present between tergites III and IV in nymphs. Connexivum below not separated by a suture. Ventrites II–IV immovably fused. Border of ventrites II–III and III–IV with a row of large lateral punctures. Hind margin of sternites IV–VII (♀) or IV–VIII (♂) less sclerotized. In males of most species hind margin of sternite III with one or some black teeth at each side. Segment VIII of male covered dorsally by the preceding segment, ventrally well exposed. Ventral laterotergites IV–VII with a large parastigmal pit (fossette parastigmatique) near anterior margin, pits on segment IV smaller than the remaining. Sensory setae on last ventrites, characteristic for many Nabidae, apparently absent.

Genital segment of male as in other Nabinae, bristles of Ekblom's organ ("stridulatory organ" of early authors) in a single row. Parameres and sclerotized structures of aedeagus variable. Female with laciniate ovipositor, sternite VII with a genital apophysis, vagina symmetrical, lateral oviducts entering vagina separately, not forming a common oviduct, a single parietal gland (not found in all species) lying on the dorsal side of the vagina behind the base of vermiform gland.

Etymology. From the Latin *prae,* before, and the generic name *Carthasis.*

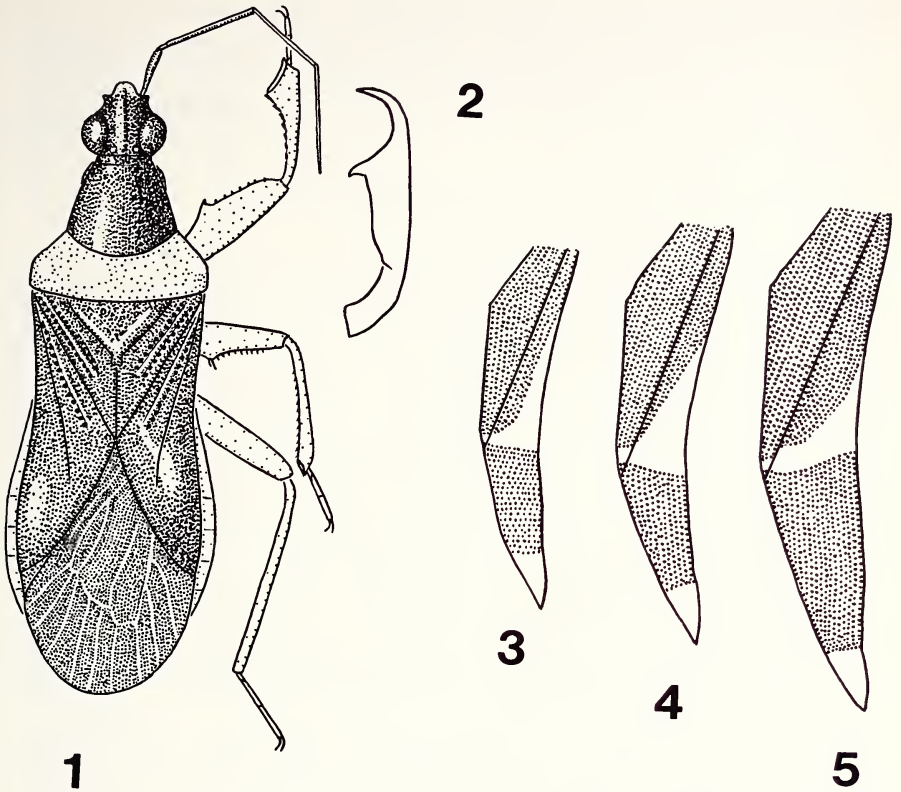
Discussion. The genus includes six species, all from tropical America. They can be subdivided in two groups. Characters of the groups are indicated in the key and omitted in the species descriptions.

Before this study the tribe Carthasini included only one genus, *Carthasis* Champion, with nearly all species found in Central America and the West Indies. Because of reduction of ostiolar canals of metathoracal scent glands some authors wrongly referred this genus to Reduviidae (Blatchley, 1926) or placed it in Nabidae with doubt (Carayon and Villiers, 1968:708). *Praecarthasis* is interesting because it has many intermediate characters between Nabini and *Carthasis* (see Kerzhner, 1981:85, on the evolution of Carthasini).

KEY TO SPECIES OF *Praecarthasis*

1. Fore lobe of pronotum moderately raised; hind lobe, collar, and sides of prothorax densely punctured (Figs. 6, 7). Third antennal segment shorter than the 2nd. Fore femora, fore tibiae, and 1st segment of hind tarsi without long bristles (Fig. 6). Xyphus of prothorax more or less triangular. The more sclerotized and punctured part of hemelytra slightly longer than scutellum, the remaining part of corium and clavus not transparent. Mediotergites I–VII of abdomen punctured. In male, sternite III of abdomen without teeth or with one tooth at each side. Body mostly yellowish, except in *P. nigrescens.* (*P. panamensis* Group) 2

– Fore lobe of pronotum humped; hind lobe, collar, and sides of prothorax not punctured, or only the hind lobe with 1–2 rows of punctures on fore margin (Figs. 8, 9). Third



Figs. 1–5. 1, 2. *Alloeorhynchus alayoi.* 1. Female. 2. Paramere. 3. *Arachnocoris panamensis,* clavus and corium of male. 4. *A. albomaculatus,* the same. 5. *A. alboannulatus,* the same.

antennal segment longer than the 2nd. Basal half of fore femora with two long setae, the basal one stouter and darker; fore tibiae on ventral side with 2 rows of bristles intermixed between oblique teeth; 1st segment of hind tarsi with a long bristle at apex (Fig. 8). Xyphus of prothorax trapezoidal. The more sclerotized and punctured part of hemelytra shorter than scutellum, the remaining part of corium and clavus more or less transparent (except lateral part of corium). Mediotergites I–VI of abdomen punctured. In male, sternite III of abdomen with four or more teeth on each side. Body mostly black. (*P. gibbus* Group) 5

2. Body length subequal to or longer than 4 mm. In male, sternite III of abdomen with a tooth on each side 3

– Body length distinctly less than 4 mm. In male, sternite III of abdomen with one tooth on each side or without teeth 4

3. Head, nearly the whole pronotum, and antennae yellow. Femora with a narrow brown ring before the apex ..... *panamensis* (Harris)

– Head, pronotum completely or in a great part, and 1st and 2nd antennal segments at least partly black or brownish black. Femora without brown rings .... *nigrescens,* new species

4. Femora without brown rings or spots. Hind lobe of pronotum unicolorous. In male,

Table 1. *Praecarthasis,* means of some measurements in millimeters.

	panamensis		*nigrescens*		*pusillus*	*paprzyckii*		*gibbus*		*froeschneri*	
	♂	♀	♂	♀	♂	♂	♀	♂	♀	♂	♀
Head length	0.50	0.51	0.54	0.57	0.48	0.51	0.51	0.61	0.64	0.50	0.52
Head width	0.50	0.50	0.60	0.62	0.51	0.50	0.50	0.69	0.72	0.57	0.60
Vertex width	0.17	0.16	0.19	0.20	0.20	0.19	0.19	0.26	0.29	0.23	0.23
Length antennal segment I	0.57	0.59	0.64	0.63	0.52	0.56	?	0.65	0.66	0.47	0.49
Length antennal segment II	0.73	0.73	0.79	0.79	0.60	0.67	?	0.87	0.84	0.64	0.67
Length antennal segment III	0.60	0.60	0.57	0.57	0.43	?	?	1.38	1.31	0.71	0.76
Length antennal segment IV	?	?	?	1.00	0.93	?	?	1.57	1.57	1.36	1.43
Length rostral segment II	0.57	0.60	0.64	0.66	0.57	0.54	0.54	0.90	0.89	0.71	0.79
Length rostral segment III	0.43	0.44	0.46	0.50	0.40	0.44	0.42	0.68	0.71	0.54	0.59
Length rostral segment IV	0.23	0.21	0.27	0.29	0.23	0.20	0.20	0.32	0.31	0.29	0.26
Length pronotum	0.87	0.90	1.06	1.11	0.86	0.93	0.94	1.16	1.21	0.90	1.01
Width pronotum	1.00	1.07	1.24	1.30	0.96	0.99	1.03	1.24	1.38	0.96	1.17
Length fore femur	1.27	1.29	1.36	1.40	1.13	1.23	1.29	1.78	1.75	1.36	1.42
Thickness fore femur	0.23	0.23	0.24	0.26	0.20	0.21	0.21	0.30	0.32	0.24	0.26
Length hind tibia	1.70	1.70	?	1.95	1.70	?	1.79	2.40	2.47	1.79	2.02

sternite III of abdomen without teeth ..... *pusillus,* new species

– Femora with a brown ring or spot near the apex. Hind lobe of pronotum with three brown stripes. In male, sternite III of abdomen with a tooth at each side .... *paprzyckii,* new species

5. Hind lobe of pronotum without punctures. Length more than 4.5 mm. Fore femora, as a rule, widely brown in middle ..... *gibbus,* new species

– Hind lobe of pronotum with 1 or 2 rows of punctures at fore margin. Length less than 4.5 mm. Fore femora not brown ..... *froeschneri,* new species

Species of *P. panamensis* Group (see key)

Praecarthasis panamensis (Harris, 1926), **New Combination**

Figs. 6, 7, 16, 17, 26

Nabis panamensis Harris, 1926:3; 1928:46.

Diagnosis. Dirty yellow, fore corners, humeri and faint median line at the hind lobe of pronotum, apex of scutellum, and veins on the inner corner of corium and the apical third of clavus more or less brown. Corium slightly darker at middle and apex. Sides of the head behind eyes, thorax beneath, and lateral stripes at base of abdomen on underside brown. Rostrum, antennae, and legs pale yellow, antennal

segment 1 and narrow subapical ring on femora brown. In male, abdominal sternite III with one tooth on each side. Paramere, aedeagus, and vagina as in Figures 16, 17, 26. Length of male 4, of female 4.1; width of male 1.1, of female 1.2.

Discussion. I have examined the holotype and the allotype, both from Porto Bello, Panama (USNM).

Praecarthasis nigrescens, new species
Figs. 14, 15, 18, 19, 27

Description. Head, except neck, black. Pronotum and scutellum in females black or blackish brown, in male the fore margin of collar, posterior two thirds of hind lobe of pronotum and lateral corners of scutellum dirty yellow. Hemelytra blackish, brownish or dark grey, in male paler at base of corium and clavus. Thorax beneath brownish black, abdomen yellow, genital segment of male and genital sclerites of female (except ovipositor itself) black. Rostrum, antennae, and legs yellow, segment 1 of rostrum and two basal antennal segments almost completely, or at least at apex, brown, femora without brown rings. In male, abdominal sternite III with one tooth on each side. Paramere, aedeagus, and vagina as in Figures 18, 19, 27. Length of male 4.4, of female 4.6–4.9; width of male 1.3, of female 1.4.

Holotype. ♂, BRAZIL, **Matto Grosso,** Sinop, 12°31′N, 55°37′W, Oct. 1975 (M. Alvarenga; AMNH).

Paratypes. 2♀♀ BRAZIL: **Para,** Jacareacanga, May 1969 (F. R. Barbosa; AMNH, ZIL); 2♀♀, PERU: **Junin,** Satipo, 10 July and 24 Aug. 1941 (P. Paprzycki; USNM).

Etymology. Named for its blackish color, from the Latin *nigrescens*, blackish.

Praecarthasis pusillus, new species
Figs. 20, 28

Description. Head dirty yellow, posterior half on dorsum with a longitudinal brown stripe. Pronotum and thorax beneath tawny. Scutellum yellow, with the apex brown or with a longitudinal brown stripe. Basal part of hemelytra light tawny, remaining part brownish gray, except veins on the inner half of the corium brown, apical half of corium outside of vein R+M tawny, dark at hind margin, area around the transverse vein between R+M and Cu dark. Membrane light gray, with one or two veins. Abdomen beneath dirty yellow. Rostrum, antennae, and legs dirty yellow, without brown spots. Abdominal sternite III in male without teeth. Paramere and aedeagus as in Figures 20, 28. Length of male 3.6, width 1.1. Female unknown.

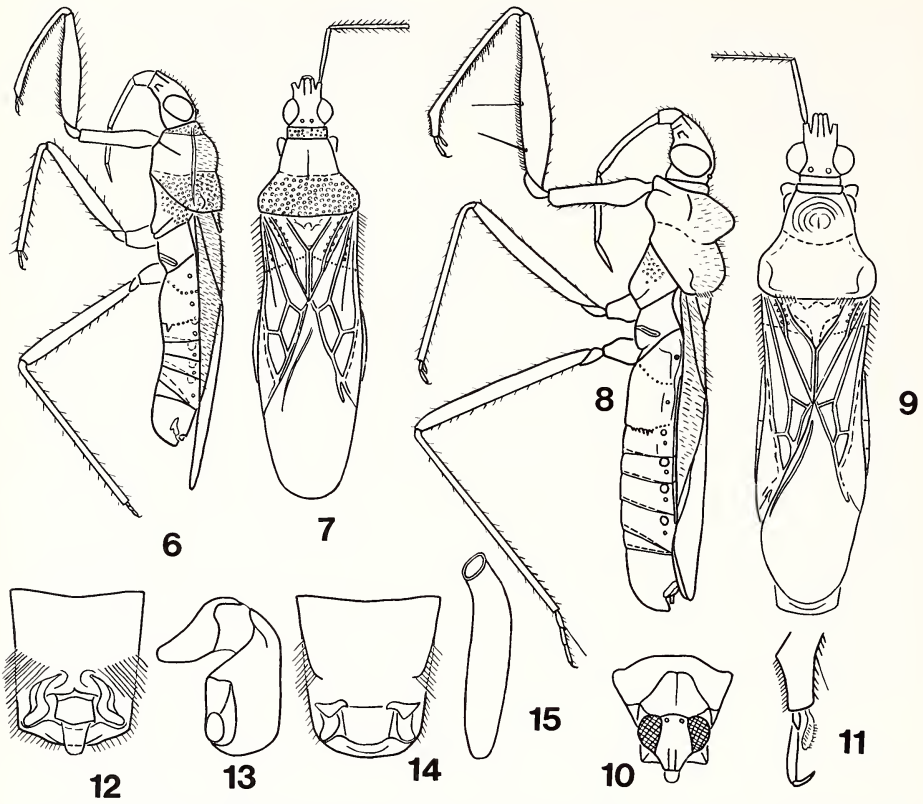
Holotype. ♂, BRAZIL, **Rio de Janeiro,** Conceição de Macabú, Aug. 1977 (M. Alvarenga; AMNH, will be deposited in Brazil).

Paratype. ♂, "BRAZIL, on orchid," "S. Francisco, Cal., 24 Jan. 1941, # 17427" (USNM), specimen apparently intercepted by San Francisco quarantine inspection.

Etymology. Named for its small size, from the Latin *pusillus*, small.

Praecarthasis paprzyckii, new species
Figs. 21, 29

Description. Head dirty yellow, posterior half on dorsum brown or with a longitudinal dark brown stripe. Pronotum dirty yellow, sides of collar and fore lobe

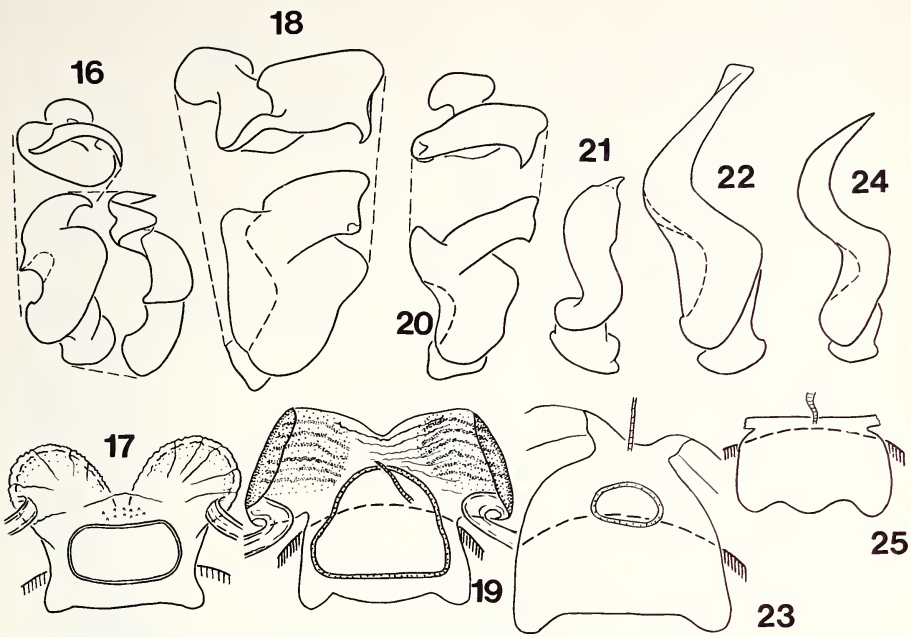


Figs. 6–15. *Praecarthasis.* 6, 7. *P. panamensis.* 6. Lateral view of male. 7. Dorsal view of male. 8–13. *P. gibbus.* 8. Lateral view of male . 9. Dorsal view of male. 10. Head and pronotum in frontal view. 11. Apex of fore tibia and fore tarsus. 12. Genital segment of male. 13. Penis. 14, 15. *P. nigrescens.* 14. Genital segment of male. 15. Ovarian egg.

brownish black, hind lobe with 3 longitudinal, brownish stripes. Scutellum yellow, with a longitudinal, blackish, brown stripe. Thorax beneath brownish black, with some parts yellowish or reddish. Basal part of corium and clavus dark yellow, with indistinct oblique brownish stripe between the veins, remaining part yellowish gray, veins in the inner part of corium, a spot from inner discal cell of corium up to its lateral margin and apex of corium brownish black. Membrane gray, with two dark spots on apical half, two veins near the outer margin. Abdomen beneath dark yellow, with two longitudinal black stripes at base, sternite III in male with a tooth at each side. Antennae, rostrum, and legs yellow, 1st segment of rostrum and a narrow subapical ring on all femora (interrupted at fore and middle femora) brown. Paramere and aedeagus as in Figures 21, 29. Vagina mutilated during preparation. Length of male and female 3.7; width of male 1.05, of female 1.15.

Holotype. ♂, PERU, **Junin,** Satipo, 9 Aug. 1941 (P. Paprzycki; USNM).

Paratype. ♀, PERU, **Huanuco,** Tingo Maria, vegetation on steep hillside 1 km SE



Figs. 16–25. *Praecarthasis.* 16, 17. *P. panamensis.* 16. Paramere. 17. Vagina. 18, 19. *P. nigrescens.* 18. Paramere. 19. Vagina. 20. *P. pusillus,* paramere. 21. *P. paprzyckii,* paramere. 22, 23. *P. gibbus.* 22. Paramere. 23. Vagina. 24, 25. *P. froeschneri.* 24. Paramere. 25. Vagina.

of town, forested eastern foothills of the Andes, 2,000 m, 15 Aug. 1971 (P. S. and H. L. Broomfield; BMNH).

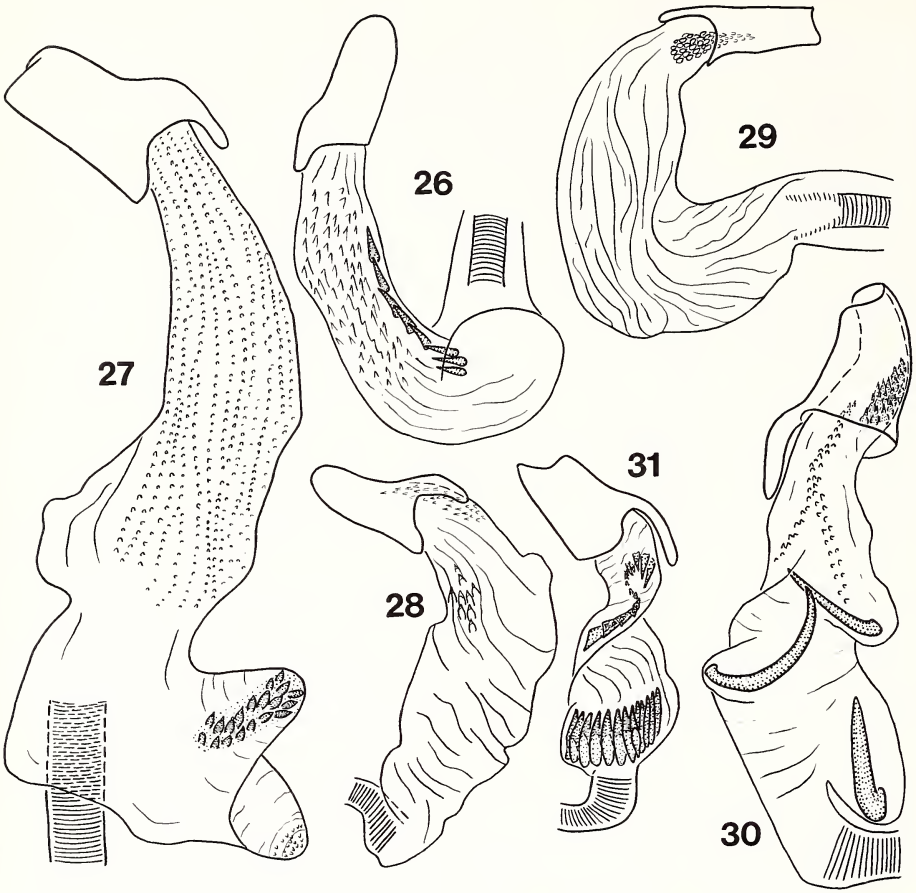
Etymology. Named in honor of P. Paprzycki, collector of the holotype.

Species of *P. gibbus* Group (see key)

Praecarthasis gibbus, new species

Figs. 8–13, 22, 23, 30

Description. Body black or brownish black, hemelytra usually slightly more light colored than head and pronotum and, in a great part, slightly transparent. Corium on the hind fourth with a white spot at lateral margin or (in some specimens from Peru) with a transverse white stripe, membrane with a white spot near the apex of corium. Abdomen beneath in the middle of segments IV–VII (♀) or IV–VIII (♂), and sometimes at lateral margins, yellow. Antennal segment 1 dirty yellow, segment 2 completely black or, at least on the apical ⅓, brown, segments 3 and 4 brown. Rostrum and legs yellow, rostral segment 1 and a wide ring in the middle of fore femora brown, darkening of femora sometimes indistinct (in some specimens from Peru). Abdominal sternite III in male with 6–7 teeth at each side, size of teeth gradually increasing to the lateral margin, except for the very small last tooth. Pronotum very shiny, without punctures. Paramere, aedeagus, and vagina as in Figures 22, 23, 30; sclerites at base of ovipositor, visible through vagina, covered with numerous small



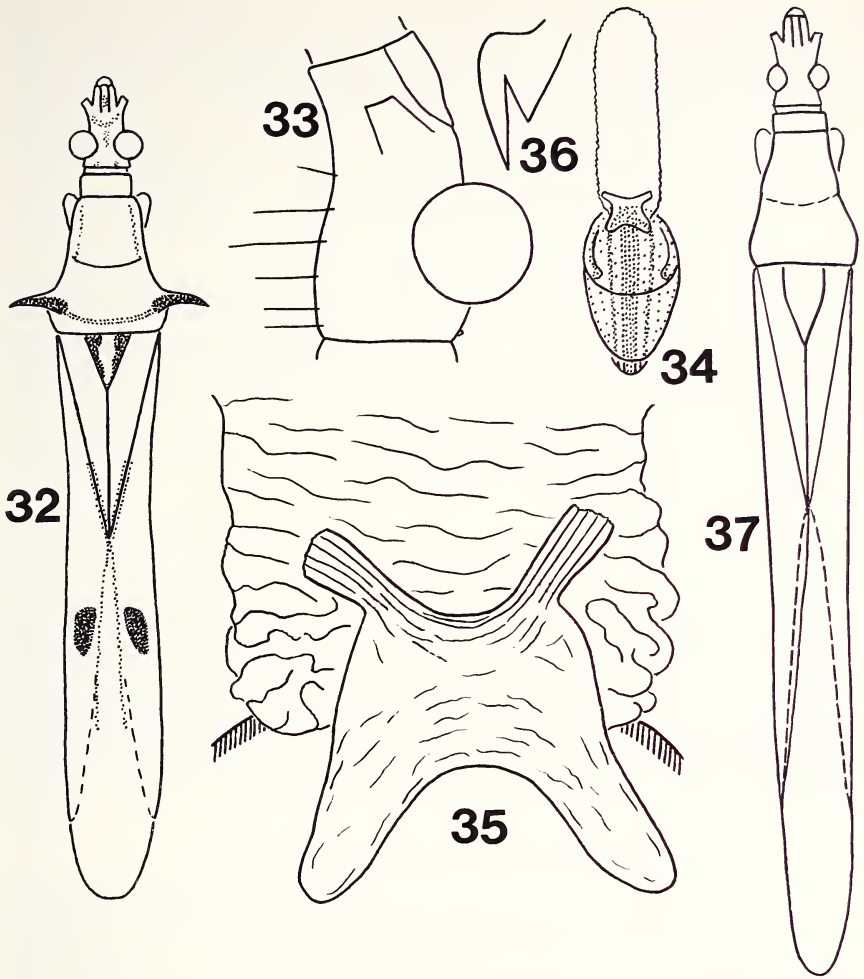
Figs. 26–31. *Praecarthasis,* aedeagi. 26. *P. panamensis.* 27. *P. nigrescens.* 28. *P. pusillus.* 29. *P. paprzyckii.* 30. *P. gibbus.* 31. *P. froeschneri.*

teeth (in this species only). Length of male 4.8–4.9, female 5–5.6; width of male 1.1–1.15, female 1.1–1.4.

Holotype. ♂, ECUADOR, **Pastaza**, Ashuara Indian Village about 10 km from Rio Morena, 14 July 1971 (B. Malkin; AMNH).

Paratypes. ECUADOR: ♀, same data as for holotype (ZIL); ♀, **Pastaza**, Rio Macuna, 10 km from Rio Morena, 300 m, 11–16 July 1971 (B. Malkin; AMNH). PANAMA: ♂, Barro Colorado I., Canal Zone (J. Zetek; AMNH). PERU: **Junin**: ♀, San Ramon de Pangoa, 40 km SE Satipo, 750 m, pl. 2, soil-litter layer in primary forest, 7 June 1972 (R. T. and J. C. Schuh; AMNH); ♂, Satipo, 10 Aug. 1941 (P. Paprzycki; USNM). **Cuzco,** ♀, Quincemil, Aug. 1962 (L. A. Peña; USNM).

Etymology. Named for its humped pronotum from the Latin adjective *gibbus,* humpbacked.



Figs. 32–37. *Neogorpis.* 32-36. *N. spinicollis.* 32. Body from above. 33. Head from the side. 34. Genital sclerites and vagina of female (same magnification as in Fig. 32). 35. Base of vagina, enlarged. 36. Claw. 37. *N. neotropicalis,* body from above.

Praecarthasis froeschneri, new species
Figs. 24, 25, 31

Description. Body black, hemelytra (except base, apex of corium, and lateral part before the white stripe) more light colored, grayish brown and transparent than in *P. gibbus.* Posterior ¼ of corium with a transverse white stripe, veins on the transparent area of hemelytra dark, except anterior area of the vein Cu. Abdomen beneath with yellow area medially on sternites III or IV to VII (♀) or VIII (♂), and often with

yellow lateral margins. Rostrum, antennae, and legs yellow, segment 1 of rostrum brown, apex of antennal segment 2 light brownish. Abdominal sternite III in male with 4 teeth at each side, the size of them gradually increasing to the lateral margin, but lateral-most tooth much larger than the preceding. Pronotum in lateral aspect less shiny on collar and, sometimes, on hind lobe; fore margin of the hind lobe with one row of punctures, sometimes with a second row. Paramere, aedeagus, and vagina as in Figures 24, 25, 31. Length of male 3.9–4.4, female 4.1–4.4; width of male 0.9–1.1, female 1.1.

Holotype. ♂, ECUADOR, **Pastaza**, Ashuara Indian Village, about 1 km from Rio Morena, 14 July 1971 (B. Malkin; AMNH).

Paratypes. ♀, ECUADOR, same data as for holotype (ZIL). PERU: **Junin:** ♀, Estancia Naranjal San Ramon, 1,000 m, 20–27 July 1965 (P. and B. Wygodzinsky; AMNH); ♀, Satipo, 10 Aug. 1941 (P. Paprzycki, USNM). BRAZIL: **Mato Grosso:** ♀, Sinop, 12°31'S, 55°37'W, Oct. 1974 (M. Alvarenga; AMNH).

Etymology. It is a great pleasure for me to dedicate this species to Dr. R. C. Froeschner on the occassion of his 70th birthday and in recognition of his excellent work on Ecuadorian Heteroptera.

Tribe Gorpini
Neogorpis Barber, 1924

Diagnosis. Neogorpis differs from *Gorpis* Stål as follows: eyes subspherical (Fig. 33), highly raised above the vertex; ocelli reduced; head beneath with two rows of stout bristles; right and left sides of prothorax fused behind coxal cavities, nearly without medial suture; xyphus of prothorax more or less truncate at apex; hemelytra folded around sides of abdomen; lateral margins of abdomen raised above and partly folded over upper side; claws (Fig. 36) with a large tooth at base.

Neogorpis spinicollis, new species
Figs. 32–36

Description. Light yellow, partly greenish or with an orange hue. Humeral projections above black, holotype with an arciform brown stripe between humeral angles. Scutellum largely brown laterally or completely light brown. Clavus slightly darker along the commissure. Corium on the hind third with a small black spot nearly touching its inner margin. Diffuse reddish spots present on dorsal surface of head and near sides of fore lobe of pronotum. Border between corium and apical half of clavus and basal half of membrane marked with a narrow red stripe. All red markings reduced or absent in the Porto Bello specimen. All femora or only middle and hind femora with an interrupted, subapical, red ring.

Eyes raised above vertex by nearly half of their height. Ocellar tubercles present, but ocelli reduced. Antennal segment 1 as long as head and pronotum together. Humeral angles of pronotum projected into long, sharp spines, collar and hind lobe slightly shining, finely wrinkled and puncate, hind margin straight. Hemelytra just surpassing the apex of abdomen, hind wings not quite reaching apex.

Length 10.3–10.7, width at middle of abdomen 1.2; head length 1.05, width 0.85; distance between eyes 0.17; length of antennal segments (I–IV) 3.0, 3.8, 2.6, 1.9; length of rostral segments (II–IV) 1.2, 0.8, 0.4; pronotal length 2.0, width at hind

margin 1.5, at humeral projections 2.5–2.6; length of fore femora 3.8, width 0.47, length of hind tibiae 6.3.

Vagina (Figs. 34, 35) with a long membranous bag, nearly reaching the middle of abdomen.

Male unknown.

Holotype. ♀, PANAMA, Canal Zone, Barro Colorado I. (K. Cooper, AMNH).

Paratypes. PANAMA: ♀, same locality as holotype, 27 Dec. 1940 (K. W. Cooper, AMNH); ♀, Porto Bello, Jan. 1971 (J. Maldonado Capriles; USNM).

Discussion. In *N. neotropicalis* (Barber) from Puerto Rico, the only species of *Neogorpis* known before this study (Fig. 37), the pronotum lacks humeral projections, the hemelytra are without black spots and red stripes, and antennal segments 2 and 3 and the rostrum have red spots.

Etymology. Named for the projecting humeral angles of the pronotum; from the Latin *spina,* spine, and *collum,* neck (often used for the prothorax of insects).

Tribe Nabini

Lasiomerus signatus (Uhler), **Revised Status**

Coriscus signatus Uhler, 1894:205.
Nabis signatus: Champion, 1899:304.
Reduviolus spinicrus (in part): Reuter, 1908:103.
Nabis spinicrus Harris (not Reuter, 1890): 1928:47.

Discussion. The synonymy of *L. signatus* with *L. spinicrus,* established by Reuter (1908), is incorrect. I have examined the holotype of *N. spinicrus* (brachypterous male, Brazil, ZMH) and a series of macropterous males and females of *L. signatus* from various countries, including some syntypes (Grenada Is.; USNM, ZIL). These species, in addition to some external characters, have good differences in the male genitalia.

Hoplistoscelis sericans (Reuter), **Revised Status**

Nabis sericans Reuter, 1872:83.
Nabis nigriventris: Champion (in part, not Stål, 1862), 1899:302.
Nabis deceptivus Harris, 1928: 45. **New Synonymy.**

Discussion. The lectotype of *N. sericans* is designated as follows: macropterous male in NRS labeled "Texas"; "Belfrage"; "*sericans* Reut. Typ." (O. M. Reuter's handwriting), "Typus." I also have examined paralectotypes, 3 brachypterous females labelled "Texas" and "Belfrage" (NRS, ZMH). The synonymy of *N. sericans* with *N. nigriventris,* established by Champion (1899), is incorrect, and in fact, *N. sericans* is a senior synonym of *N. deceptivus,* as suspected by Harris (1928).

SUBFAMILY PROSTEMMATINAE

Alloeorhynchus alayoi, new species
Figs. 1, 2

Alloeorhynchus sp. Alayo, 1967:4, pl. 1, fig. 1; Alayo, 1971:14.

Diagnosis. Easily distinguished from all New World species by the combination of the black fore lobe of the pronotum, the orange-yellow hind lobe, and the black

hemelytra. In *A. vittativentris* Stål the fore and hind lobe are black, and the body length is 5.0. In *A. moritzii* Stein the fore lobe is black, hind lobe from black to dirty yellow, but hemelytra are yellow at the base.

Description. Very shiny, scutellum, clavus mesad of vein, inner corner of corium, and underside of metathorax dull. Entire body covered with light-colored setae.

Head except apex, fore lobe of pronotum, scutellum, hemelytra, underside of thorax (except fore acetabulae and hind part of prothorax), and basal segment of abdomen (except lateral margins) black or dark brown. All remaining parts of the body, legs, and rostrum yellow, sometimes apices of femora and connexivum tinged with pink and hind lobe of pronotum tinged with orange. Antennae dirty yellow to dark brown.

Eyes slightly narrower than vertex. Ocelli large. Antennal segment 1 slightly shorter than width of vertex plus one eye, segment 2 slightly less than twice as long as 1, segment 3 shorter than 2, segment 4 the longest. Rostrum reaching to middle of mesothorax. Pronotum 1.2 times broader than long, fore lobe twice as long as hind lobe, hind margin straight or slightly concave. Scutellum with two pits near the base, apex slightly widened and truncate. Clavus with two rows of punctures on basal ⅔, corium with a row of 13–15 punctures at each side of innermost vein (Cu). Membrane with distinct typical venation, the innermost of three cells not touching the base of membrane.

Fore femora widest slightly before the middle (nearer to the base), with two rows of about 13 black teeth, extending from widest part to the apex. Fore tibiae strongly widened on apical third. Middle femora widest in the middle, widest part with two long black teeth, hind tooth longest, positioned distally from these teeth two rows of smaller black teeth, the hind (posteroventral) row shorter, with about 6 teeth, the fore (anteroventral) row longer with about 10 teeth. Middle tibiae feebly widened toward the apex. Hind femora without black teeth. Connexivum above without spots formed by black setae.

Length of male 3.4, female 3.4–4.5; width of male 1.25, female 1.4–1.55; head width 0.57–0.64, interocular distance 0.23–0.27, pronotal length of male 0.96, female 0.96–1.21; width of male 1.14, female 1.21–1.46; length of antennal segments I–IV 0.36–0.43, 0.64–0.74, 0.57–0.64, about 0.85; length of rostral segments I–IV 0.21–0.24, 0.43–0.50, 0.30–0.36, 0.15–0.17.

Paramere as in Figure 2.

Holotype. ♂, CUBA, S.[agua] la Grande, 2 Jan. 1936 (C. G. Aguayo; ZIH).

Paratypes. CUBA: ♀, E. E. A. [Estancia Experimental Agraria] de Cuba, No. 9817, *Alloeorhynchus* n. sp.? S. C. B[runer] (ZIH); ♀, Playa Larga, C. Zapata, 1 May 1968 (P. Alayo; ZIH); ♀, Lomas de Soroa, Pinar del Rio, a la luz, May 1965 (ZIH); 2♀♀, Soledad, Cienfuegos, Las Villas, a la luz, Feb. and March 1968 (ZIH; ZIL); ♀, valley of R. Jora, 27 May 1965 (Stary; UP).

Etymology. It is a pleasure for me to dedicate the name of this species to the Cuban entomologist P. Alayo D., who published its first description and figure.

Alloeorhynchus moritzii (Stein)

Prostemma moritzii Stein, 1860:77.
Alloeorhynchus moritzii: Stål, 1873:109; Reuter and Poppius, 1901:40.

A. armatus Uhler, 1894:207; Reuter and Poppius, 1909:41; Harris, 1928:15. **New Synonymy.**

Discussion. I have examined the holotype of *P. moritzii,* a male from the island "St. Jean" (St. John) in the Virgin Islands (ZMB).

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LITERATURE CITED

Alayo, P. D. 1967. Catálogo de la fauna Cubana XXI. Hemipteros de Cuba—V. Familias Nabidae y Henicocephalidae. Trab. Divulgac. Mus. "F. Poey" 46:1–13.

Alayo, P. D. 1971. Los hemípteros de Cuba, adiciones y enmiendas. Trab. Divulgac. Mus. "F. Poey" 63:1–17.

Bergroth, E. 1914. Note on the genus *Arachnocoris* Scott. Ent. Mon. Mag. 50 (2nd ser. 25): 116–117.

Blatchley, W. S. 1926. Heteroptera or true bugs of Eastern North America. Nature Publ. Co., Indianapolis, 1116 pp.

Carayon, J. and A. Villiers. 1968. Étude sur les Hémiptères Pachynomidae. Ann. Soc. Entomol. France (N.S.) 4(3):703–739.

Carvalho, J. C. M. and W. R. Dolling. 1976. Neotropical Miridae, CCV: type designations of species described in the "Biologia Centrali Americana" (Hemiptera). Rev. Brasil. Biol. 36:789–810.

Champion, G. G. 1897–1901. Biologia Centrali-Americana. Insecta. Rhynchota. Hemiptera-Heteroptera, vol. 2. London, 416 pp. [Nabidae: 1899:297–304; 1900:305–306].

Distant, W. L. 1880–1893. Biologia Centrali-Americana. Insecta, Rhynchota. Hemiptera-Heteroptera, vol. 1. London, 462 pp. [1893:419].

Harris, H. M. 1926. Distributional notes on some neotropical bugs of the family Nabidae, with description of a new species. Proc. U.S. Nat. Mus. 69:1–4.

Harris, H. M. 1928. A monographic study of the hemipterous family Nabidae as it occurs in North America. Entomol. Amer. (N.S.) 9:1–97.

Kerzhner, I. M. 1981. Bugs of the family Nabidae. Fauna of the USSR. Rhynchotous insects. Vol. 13, pt. 2. Leningrad, 326 pp. [In Russian]

Myers, J. G. 1925. Biological notes on *Arachnocoris albomaculatus* Scott (Hemiptera: Nabidae). J. New York Entomol. Soc. 33:136-146.

Reuter, O. M. 1872. Nabidae novae et minus cognitae. Bidrag till Nabidernas kännedom. Öfv. Svens. Vet.-Akad. Förhandl. 29:79–96.

Reuter, O. M. 1908. Bemerkungen über Nabiden nebst Beschreibung neuer Arten. Mém. Soc. Ent. Belg. 15:87-130.

Reuter, O. M. and B. Poppius. 1909. Monographia Nabidarum orbis terrestris, I. Acta Soc. Sci. Fenn. 32(2):1–62.

Stein, J. P. E. F. 1860. Zwei neue *Prostemma*-Arten. Berl. Entomol. Z. 4:76–78.

Uhler, P. R. 1894. On the Hemiptera-Heteroptera of the Island of Grenada, West Indies. Proc. Zool. Soc. Lond. 1894:167-224.